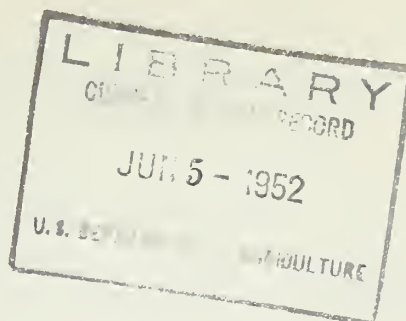


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

524W

OLD MAN OF THE PRIBILOFS



WILDLIFE LEAFLET 323
FISH AND WILDLIFE SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR



86 111 110

170 111 110

111 111 110

111 111 110

United States Department of the Interior, J. A. Krug, Secretary
Fish and Wildlife Service, Albert M. Day, Director

Wildlife Leaflet 323

Washington 25, D. C.

July 1949

OLD MAN OF THE PRIBILOFS 1/

By Albert M. Day, Director, Fish and Wildlife Service
United States Department of the Interior

In the heart of Bering Sea, some 300 miles off the mainland of Alaska, lie five dots of land called the Pribilof Islands, named after Gerassim Pribilof, a Russian navigator who discovered them in 1786. Mariners speak of these islands as the "Mist Islands," because they are almost continuously enshrouded in a pea-soup fog.

Although rocky, treeless, rain-swept, and wind-lashed, this desolate group of tiny islands is, nevertheless, an exclusive summer resort that annually accommodates nearly 4 million visitors. These summer residents - the Alaska fur seals - come once a year, with unerring regularity, to the Pribilofs to bear their young and to breed, because this fog-bound bit of land is exactly to their liking. They like it so well, in fact, that this is the only place in the world where they have ever been known to set their flippers on land.

From their oceanic wintering grounds, the forerunners of the annual summer migration appear at the islands early in April or May - sometimes as early as March. These are the lordly breeding "bulls", fat and strong from a winter of ease and feasting. They come ashore, sometimes through remnants of the ice along the beach, to fight furiously among themselves for the possession of their favorite places on the "Rookeries," or breeding areas. Weighing on an average around 500 pounds, these big animals have been known to top the scales at 700 pounds.

About the first of June the pregnant "cows," or breeding females, begin to appear from the sea and join the family groups, or "harems." Females weigh around 75 pounds and, rarely, attain a weight of 100 pounds. As the newcomers reach shore, each bull seal, or harem master, collects as many as 40 or more "wives" for his harem. Once a female enters a harem, she cannot depart. Divorces are not permitted among the fur seals. To prevent rivals from kidnapping his mates, the harem master maintains a day-and-night vigil all summer. At this time

he is a very dangerous animal and will attack any man or beast that comes near him or his harem.

Within a few days after their arrival, each pregnant female gives birth to one pup, after a gestation period of between eleven and twelve months. Females bear their first pup when three years old, but the males do not mature to the extent that they are able to acquire harems until they are six or seven years old.

At birth the pups are remarkably large in relation to the size of their mothers, averaging about 12 pounds. They are jet black in color, but toward fall they change to the grayish-brown color of the older fur seals. The pup remains on shore for several weeks while the mother makes trips out to sea two or three times a week to seek the fish that will enable her to produce a store of rich milk sufficient to nourish her lusty youngster. Sometimes she has to go 100 miles or more to get small forms of fish life, particularly the squid, which is abundant in these waters.

After these babies are born, and throughout their nursery period, which is also a new mating season, the "Old Man of the Pribilofs" keeps his many mates in his own bailiwick, battles off rivals, sleeps but little, and never eats until the breeding season has ended, subsisting entirely on blubber built up while at sea. During this protracted period of fasting, the bull seals lose greatly in weight and become so thin and emaciated that when the mating season is over they are barely able to make their way across the rock-strewn rookeries to replenish their strength on the rich foods of the sea, which have been almost within a stone's throw of their long and hungry but ever-constant vigil ashore. As his reward for being the head of a large family, however, the "Old Man" escapes with a whole skin, whereas large numbers of the young bachelor seals in the three-year-old class are killed to furnish the basic material for milady's sealskin coat.

From early spring, when the ice floes recede from the shore, until late fall, just before the Arctic ice pack drifts in for the winter, the seal islands are never quiet. The raucous noise made by the roaring and barking of quarrelsome bulls defending their harems from rivals, the bellowing of flirtatious cows seeking to stray from the family circle, and the bleating of newborn pups waiting for food can be heard at sea for miles. Because the Pribilof Islands, in addition to being far off the beaten path of travel, are a special government reservation upon which no person or vessel may land except under stress of weather or by special permission of the Secretary of the Interior, comparatively few persons have ever witnessed this remarkable assemblage of seal life.

When the hectic breeding season finally comes to an end, the summer colony starts to break up as the temperature drops and the violent winds of Bering Sea start their winter wailing. With the season's pups, which



Early-season fur-seal harem, N. E. Point Rookery, St. Paul Island, Alaska.



Fur-seal mother and pup. Little Polovina Rookery, St. Paul Island.

have learned to swim, the seals, individually and in small groups, gradually disappear into the depths of the ocean until nature tells them to return. The bleak islands are deserted, and the long migration of the fur seals to warmer winter waters is under way.

Where the seals go on this migration and what they do is now the subject of an intensive investigation by the U. S. Fish and Wildlife Service. Fishery scientists want the answers to such questions as these: What species of marine life do they eat? In what proportion do they consume this food on their migrations? Are they an economic hazard to commercial fishermen? On their migrations do many of the seals travel along the Asiatic coast? To what extent does the killer whale prey upon pup seals when they take to the water?

The answers to these questions are worth considerably more than \$64 to the United States government because the potential value of the Alaska fur seals today is well in excess of \$100,000,000. They comprise about 80 percent of the priceless fur seals of the world - the raw material for soft, sleek, and expensive coats in which smart women the world over have luxuriated ever since sealskin history began in the days of Russia's Catherine the Great.

The fur seals (Callorhinus ursinus), which the United States government manages, are not to be confused with the common hair seals, which are sidely distributed over the world. The latter do not have the soft underfur that characterizes the Alaska fur seal and makes it so valuable. The seals that frequent San Francisco's Seal Rocks, to the delight of visitors, are for the most part sea lions - so familiar to circus fans - and hair seals.

Alaska fur seals are mammals that live the greater part of their lives in water. Structurally, they have much in common with bears, except that they are adapted to an aquatic life, whereas bears are terrestrial animals. Instead of feet, seals have flippers, but when they come ashore they can travel at a fairly rapid rate, at least for a short distance. So much do fur seals resemble bears in their general structure that more than two hundred years ago George Steller, the great German naturalist who accompanied Vitus Bering on his voyage of discovery to Alaska in 1741, described them as "sea bears."

These seals belong to a species distinct from any other fur seals. Other species are found on the Commander Islands, off the Siberian Coast, and on Robben Island, in the eastern part of Okhotsk Sea, now under the jurisdiction of Russia. Fur seals of other species are found also on Lobos Island, Uruguay, off the Cape of Good Hope, Africa, and to a very limited extent in other cold parts of the Southern Hemisphere.

Navigator Pribilof discovered the islands named for him only after a prolonged search had been carried on by the Russians to locate the breeding grounds of the fur seals that were so numerous about the passes of the Aleutian Islands. The Pribilof Islands, at the time of their discovery, were uninhabited, and there is no concrete evidence to indicate

that any human being had ever visited them previously. They remained under Russian management for eighty-one years, until 1867, when the United States purchased Alaska and acquired the islands as part of the Territory.

The group consists of five islands, of volcanic origin, three of which are small and relatively unimportant in seal history. St. Paul Island, the largest, is about 14 miles in length. Forty miles away, by water, is St. George Island, 12 miles long.

It is probable that before discovery the Pribilof herd may have contained as many as 4 million animals. Records indicate that prior to 1834 about 2 million pelts were taken under Russian auspices, and by that year the herd had become so reduced in numbers that restrictive measures were applied. From 1835 to 1867, about 600,000 pelts were taken at the Pribilof Islands, and in this period of restricted killing the herd increased to probably 3 million.

The number of seals in the herd when Alaska came into the possession of the United States has been variously estimated at from 2 million to 5 million animals. During the seasons of 1868 and 1869, the first two immediately following the purchase of Alaska from Russia, when killing was unrestricted, about 329,000 fur seals were killed by various independents.

For a period of forty years, from May 1, 1870, to May 1, 1910, the right to take fur-seal skins on the Pribilof Islands was leased by the government to private corporations. The annual take of seal-skins under the first lease, which ran from 1870 to 1890, was limited to 100,000 skins, and the total for the twenty-year period was 1,977,377. The annual rental and tax brought a total revenue of \$6,020,152 to the government for that period.

Under the second lease, however, there was only one year - 1896 - in which the take amounted to as much as 30,000 skins, and the total obtained by the lessee during the twenty years ending May 1, 1910, was 342,651 skins, with the government receiving a revenue of \$3,453,833. In 1910 the leasing system was discontinued, and since that time, under the acts of April 21, 1910, August 24, 1912, and February 26, 1944, the Alaska fur-seal herd has been administered, first by the Secretary of Commerce and now by the Secretary of the Interior, through the Fish and Wildlife Service.

In August 1948, when the annual census computation was made, the herd numbered 3,837,131 animals. Since 1910, when the government assumed direct control of the fur seals, 1,498,911 sealskins have been taken, worth approximately \$40,000,000. Translated into terms of fur-seal coats, which require from six to eight skins apiece, this total has produced around 200,000 coats.

Sealing operations as they are conducted today by the Fish and Wildlife service on the Pribilof Islands are confined exclusively to the killing of surplus immature males, chiefly of the three-year-old class, designated as bachelors. Considering the number of animals available, the size of the skin, and quality of the fur, the three-year-old males yield pelts of maximum value. In the older males the pelts are of little value. The habits of the fur seals while on land result in the young males herding by themselves, and this makes it possible to drive and kill three-year-olds without disturbing the breeding animals. No female or breeding bull is ever killed intentionally except for purposes of scientific research.

The best season for harvesting the crop lies between June 15 and July 31, a period of 47 days. This is the time when the three-year class is dominant on the bachelor beaches and the fur is prime. Earlier, the older males are more abundant, and later, toward August, two-year-olds and nomadic females swarm onto the beaches. In practice the season is often extended as much as a week in either direction to compensate for natural variations in the time of arrival of the young seals.

Adjacent to the breeding rookeries on the Pribilof Islands are places known as the "hauling grounds" where the young immature male seals, or "bachelors," as they are called, come ashore to enjoy a change of scenery and to acquire knowledge of their future homesites against the time when they will be ready to set up housekeeping for themselves. Not all these young fellows are destined to join a family circle, however, and it is well that they are not. Because of their great abundance and belligerent nature when they come to maturity at six years, many tremendous battles would result in the trampling to death of numerous pups if the breeding grounds were overcrowded with adult males.

It is from these hauling grounds that the seals selected for killing are driven inland a short distance. They can be driven almost as easily as a flock of sheep, but because extensive land travel is foreign to their habits of life they can go only a very short distance before they must rest. These driving operations, therefore, must be conducted with extreme care so as not to overheat the animals and thus lessen the value of the pelts.

Humid weather is preferred for the seal killing, which is done under the immediate direction of the Fish and Wildlife Service by the residents Aleuts, descendants of the people moved there in early days by the Russians for the purpose of utilizing the fur resources of the islands. These Pribilof natives, now numbering about 500, are in effect wards of the government. They are paid a fee of \$2.00 for each sealskin taken on St. George Island, where operations are on a comparatively limited scale, and \$1.20 for each skin taken on St. Paul Island. Their primary compensation, however, is through the provision by the government of all necessities of life, including schools and medical aid.



Fur-seal pups playing in the surf and learning to swim. Vostochni Rookery, St. Paul Island.



Fur-seal pup. Morjovi Rookery, St. Paul Island.

In the fur seal, polygamy is perhaps more highly developed than in any other mammal. This fact makes it possible to kill the surplus bachelor animals without decreasing the number of young that may be born. Although the average harem contains about 40 cows, there are records of more than 100 cows in a single harem. Under the existing system, where only the young males are killed, the ratio approaches 1 to 50.

A suitable reserve of three-year-old males is made each year for breeding stock. The number of this age class to be reserved is determined from observations as to the increase in the herd, the number of breeding males available, and the average size of the harem.

After the animals selected are killed, the skins are removed, washed, blubbered, and given a thorough curing in salt for at least ten days. They are then rolled singly with a generous supply of salt on the flesh side, which is turned inward. Boric acid also is used as a germicide in preserving the skins. From 80 to 100 of the skins are packed to the barrel for shipment.

Prior to 1913 the fur-seal skins taken on the Pribilofs were shipped to London for sale in a raw, salted condition. In addition to being the world's chief sealskin market at that time, London was the principal center for the dressing and dyeing of fur-seal skins. Most of the Alaska sealskins were returned to the United States for use after being dressed and dyed in London. Today the government has a contract with the Fouke Fur Company, of St. Louis, for dressing, dyeing, and selling the skins at public auction.

The process of preparing these skins is a most difficult one, because more than 125 distinct manipulations or treatments are involved. This work requires about ninety days. After grading the skins are washed to remove all surplus grease and dirt. Nature has given the Alaska seal a guard hair to protect the fine silk underfur which insulates the cold and dampness from the skin of the animal. It is this soft silk underfur that, when dyed, produces the lustrous fur of very high wearing qualities. The skins are subjected to considerable dry heat until the guard hair is loosened and can be removed without damage to the fur. After this guard hair is extracted, the pelts are put through a chamois tannage - no chemicals are used, just good quality oils, which give the same fine soft feel to the leather side associated with the finest type of chamois glove.

Then comes the dye process. Contrary to general information, the fur of the Alaska sealskin is naturally curly, very much like a lamb, and it is the dyeing process that straightens the fur and gives to it the silky, lustrous glow. A grounding solution and numerous applications of dyes are brushed into the fur, producing a permanently straightened fur of exquisite texture. After the dyeing operation is completed, the

leather is buffed down to the required thickness; the finishing operation cleans the fur, exposing the true beauty of Alaskan sealskin, and produces a leather that has such a high degree of pliability that it can be draped and molded as easily as fine cloth.

These skins are literally as temperamental as opera singers and have to be handled with the greatest care and skill. After they are finished, they are segregated into various grades, sizes, and lots and sold to the highest bidder on each lot at a public auction, held twice a year in April and October at the Fouke plant in St. Louis. The net proceeds from these sales are turned over to the Treasury of the United States.

Through careful management and scientific study, the United States government has built up this great herd of fur seals to its high of some 3,800,000 animals in 1948 from a low of about 132,000 in 1910, when it assumed direct management of the herd. At that time it was evident that something had to be done immediately to save this great natural asset. The fur-seal herd had been brought perilously close to extinction through pelagic sealing - the indiscriminate killing of seals while they are at sea. The practice began as a commercial enterprise about 1882 and reached its height in 1894, when approximately 61,000 skins were taken at sea by pelagic sealers.

Pelagic sealing was both cruel and economically wasteful. Only about one out of five animals killed was actually recovered by the hunters before the carcasses sank and the skins were lost. This practice was destructive of males and females alike. After the young were born and while they were still on the island nourished by their mother's milk, each mother seal killed at sea meant the loss of another seal, its pup, which was left on the island to starve. The mother seal does not nurse any but her own pup. Unborn pups were lost if the female seals were killed on their way northward to the breeding grounds, since these pups are born shortly after the females land on the islands.

Pelagic sealing in the north Pacific Ocean was not confined to the nationals of any one government, and with the increase in operations at sea it was soon realized that only by an international agreement could the Pribilof Islands herd be conserved. Diplomatic negotiations with regard to the matter extended over a period of years, and it was not until July 7, 1911, that effective international protection was given to this herd. On that date a convention was concluded between the United States, Great Britain, Japan, and Russia which became effective on December 15, 1911. For the first time subsequent to the development of pelagic sealing the way was cleared for effective conservation and use of the Pribilof Islands fur seals. This treaty was scheduled to run for fifteen years, and indefinitely thereafter until modified or abrogated. After fourteen years any of the four countries signing the treaty could give one year's notice of a desire to modify or cancel the agreement.

An outstanding feature of the convention was that it prohibited pelagic sealing in waters of the north Pacific Ocean north of the thirtieth parallel of north latitude and including the Seas of Bering, Kamchatka, Okhotsk, and Japan, except for the limited operations by primitive methods carried on by Indians and other aborigines dwelling on the coasts of the protected waters.

This convention, commonly known as the North Pacific Sealing Convention, also afforded protection to the Japanese fur-seal herd at Robben Island, estimated to contain not more than 50,000 animals, and the Russian herd at the Commander Islands, with probably fewer than 100,000 animals.

In return for the surrender of such profits as their nationals had been deriving from pelagic sealing operations, an allotment of 15 percent of the fur-seal skins taken annually on the Pribilof Islands was made to both Canada and Japan. Russia was a signatory of the treaty only in the interest of the seal herd on her side of the Pacific. Throughout the life of the treaty, Japan took her share in cash, which amounted to more than \$1,500,000. Until 1933 Canada took her share in cash, but after that date she often elected to take actual delivery of her share in skins.

Under the terms of the Convention of 1911, and the wise management practices employed by the United States government, the seal herd continued to increase year after year. It was not until 1940, however, that the harmonious relations existing among the signatories were disrupted when Japan served notice on our government that on October 23, 1941, it would abrogate the Convention. Japan alleged that the fur-seal herd, at least in part, migrated down the Asiatic coast and had grown so large that it was devouring valuable food fishes essential to the economy of such a fish-eating nation.

The records and findings in the possession of the United States government at that time, developed by the United States and Canada over many years, indicated, however, that the migrations of the seals were primarily along the eastern side of the Pacific. Moreover, studies of stomach contents disclosed that the fur seals fed largely on squid, pollock, seal-fish - a small deep-water fish - and other noncommercial species; very few salmon were eaten.

To bring the United States data up to date, the Fish and Wildlife Service began to make plans for an extensive investigation of the migratory and feeding habits of the fur seals, as well as the entire life history of these animals and of their relationship to the fisheries and to other economic interests.

On June 30, 1941, the Seventy-seventh Congress appropriated \$290,000 to the Service to start the fur-seal investigation. From these funds the Service purchased the three-masted schooner yacht Black Douglas and began work at Savannah, Georgia, to equip it as a



Wringing excess sea water from freshly blubbered skins; action is from right to left.



Salting fur-seal skins on St. Paul Island.

floating laboratory for studying the seals and their alleged poaching during their long migrations on the high seas. Before the vessel ever reached Seattle, however, war was declared and a submarine in Pacific waters nearly ended the career of the Black Douglas and its crew. By blacking out, and cutting its motor so the submarine could no longer trace that sound, the vessel escaped by using sail. When the Black Douglas arrived in Seattle it was requisitioned by the Navy, its scientists and crew disbanded and returned to their homes, and the seal investigation shelved "for the duration."

The matter of protecting the fur seals, however, was not neglected during the war. A provisional agreement for their protection was signed by Canada and the United States in December 1942. On February 26, 1944, the President signed a new fur-seal law to give effect to this provisional agreement. With enforcing legislation by the Canadian government, the agreement provides, among other things, that 20 percent of the skins taken on the Pribilof Islands shall become the property of Canada, the remainder to be retained by the United States. The Act of February 26, 1944, brings together, with only minor changes, all previous legislation directly affecting the Pribilof Islands fur-seal herd.

In May 1947, re-equipped as a floating laboratory the Black Douglas left Seattle, Washington, for the Pribilof Islands to seek new data on where the seals go when they leave the islands, what food they eat, and whether the young seals are preyed upon by other marine mammals.

As part of their work during the summers spent on the islands, Service biologists attached metal tags to the flippers of thousands of seal pups in each of the years 1947 and 1948. Recoveries of these tagged seals at sea during the coming years will yield specific information on the migration habits of the seals. In 1950, when the 1947 crop of pups will be ready for killing, a statistical study of the recoveries of marked three-year-olds on the killing grounds will make possible a check on the accuracy of seal census methods now in use.

From observations made to date of tagged seals that return to the islands, the fur-seal experts have already obtained valuable data. For example, we know that as seals mature they tend to return in increasing proportions to the exact area of their birth. We also know that seal cows may produce pups when they are twenty years old. We have been able to get exact figures on the rate of growth of seals, as well as a variety of other facts that are essential in the management of the herd.

Observations on fur seals in captivity have contributed information obtainable in no other way. Such observations have indicated that the daily food requirement of a medium-sized seal is about 10 pounds. The only seals in captivity now are six in the Balboa Park Zoo, in San Diego, California. On August 8, 1948, one of them gave birth to a healthy youngster, the first ever to survive birth in captivity, after a gestation period of at least 374 days.

The degree to which the fur-seal herd may be further developed is another point scientists are seeking to determine. The causes of mortality, also, are not well known, since most of them occur while the seals are at sea. The losses are probably greatest when the young pups, at the age of four months, leave the islands in November and venture into the stormy and treacherous waters of the Pacific. Many of them are thought to be destroyed by killer whales. In the stomachs of two whales stranded on the island, 18 young fur seals were found in one and 24 in the other. Hookworm is also causing the death of an increasing number of newborn seals.

When these current investigations, which will cover a period of years, are concluded and the results analyzed, the Service expects to have available a wealth of authentic data on the migrations and food habits of the fur seals and their relation to other fishery resources of the north Pacific to use as the basis for its work of protecting and perpetuating these valuable natural resources.

Fortified with new scientific data, the United States government will be in a position to combat any demands for the return of the days of unbridled exploitation of the fur-seal herd. Without the immunity from pelagic sealing which the North Pacific Sealing Convention gave to the fur seals, the herd might be commercially extinct today instead of being an important source of revenue to the government. When the Convention became effective in 1911, the government was enabled to manage the herd in accordance with a scientific program of conservation and utilization. That the herd is nearly thirty times as large today as it was in 1911 is proof of the success of this program. To return, then, to the former destructive practice of pelagic sealing would undo what is regarded as the world's outstanding achievement in the restoration of a great wildlife resource through international cooperation.

